Using online quizzing and quiz results to improve study success.

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INVITED SYMPOSIUM SIG-DT, THEME: TEST-ENHANCED LEARNING MEETS LEARNING ANALYTICS.
USING ONLINE QUIZZING AND QUIZ RESULTS TO IMPROVE STUDY SUCCESS
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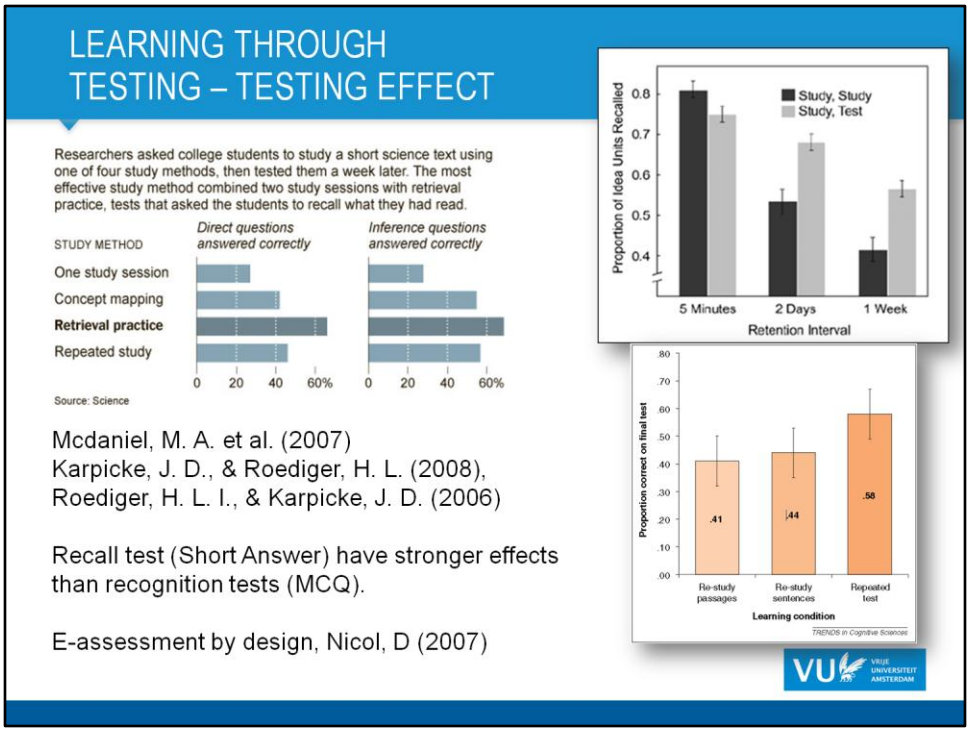
IS VERDER KIJKEN

ONLINE QUIZZING

Perfect for data-collection of learning activity and acting on it!



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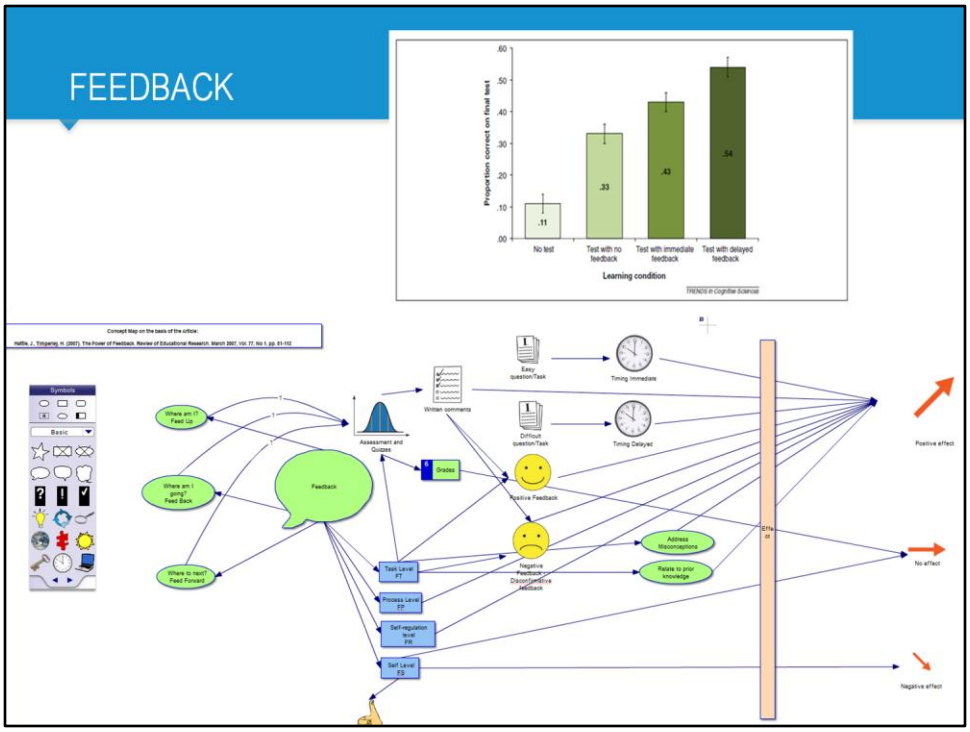

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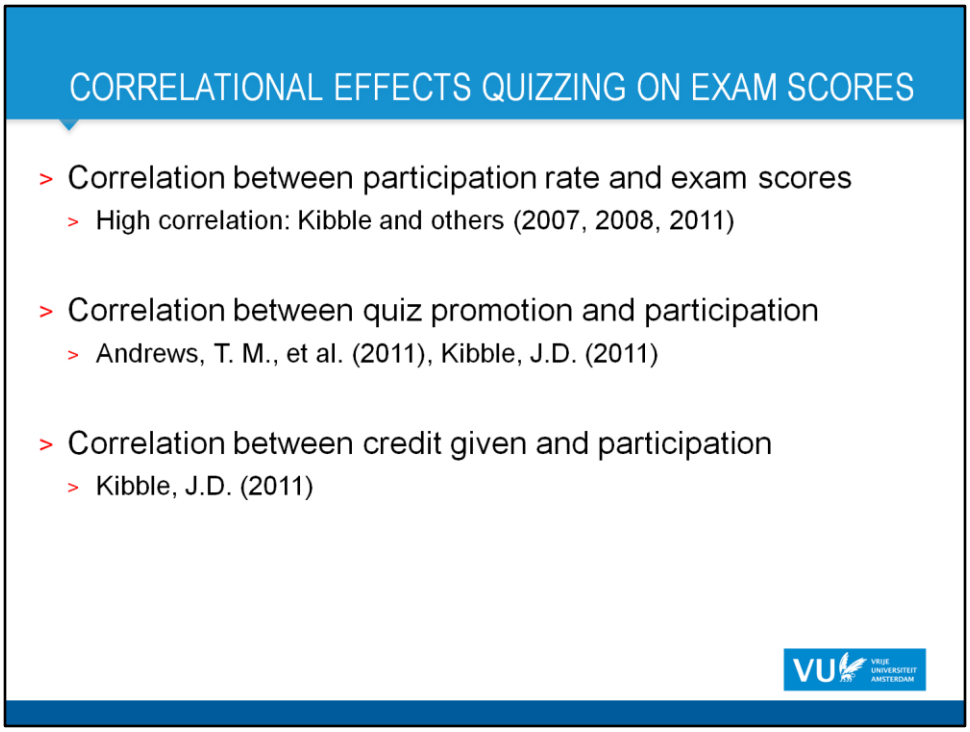

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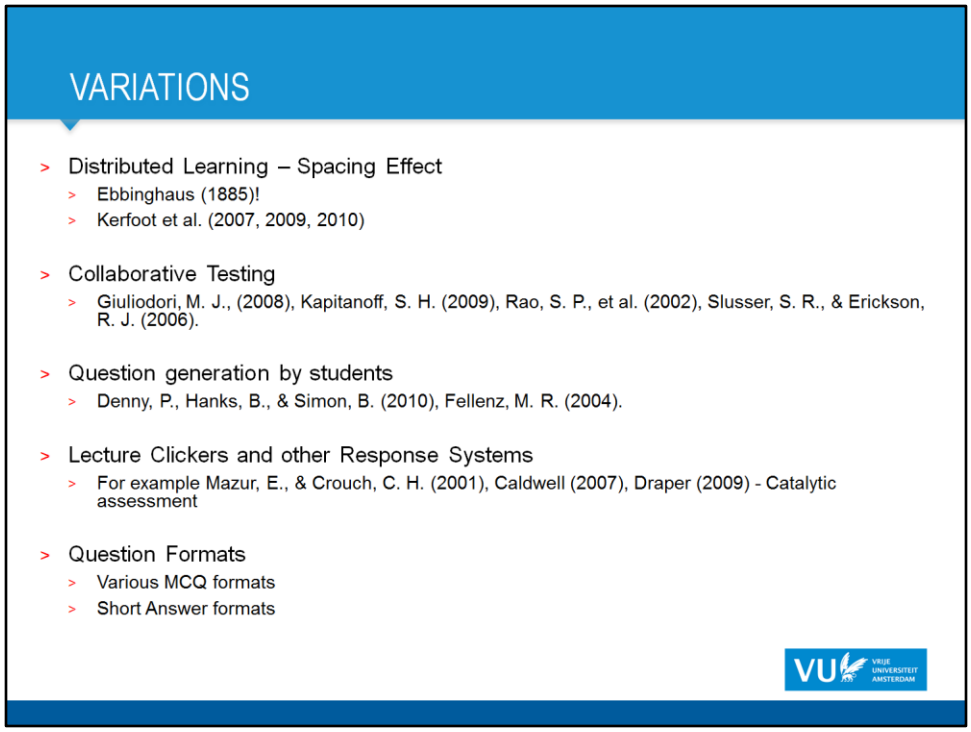

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Answer Untill Correct (AUC) – test-taker selects answer, then receives feedback if correct or not, if not –> test-takers selects next answer etc.: http://www.epsteineducation.com/home/about/how.aspx
Discrete Option Multiple Choice (DOMC) - test-taker is only shown one answering option of an mc question at a time, student must select correct answer when it is displayed: http://goo.gl/9ptvx
Certainty Based Marking (CBM) – test-taker must provide certainty level of being correct for each option in an mc question: http://www.ucl.ac.uk/lapt/index.htm
NEW! Confidence Based Marking – seems an interesting variant of Certainty Based Marking (but uses the old term of Gardner-Medwin for it unfortunately) – first, the test-takers only sees the stimulus, then rates confidence of being able to answer correctly, then is presented all options and then selects the correct option: http://goo.gl/fa6rf
Number right elimination testing (NRET) - a variant of elimination testing (ET) - mark incorrect answers, mark correct answer and provide certainty level for it: http://www.ifets.info/journals/14_4/10.pdf
Liberal (Free-Choice) Multiple-Choice Tests – test-taker may select any option of an mc question but correct option is awarded 3 points, any incorrect selected option is awarded -1 point. Main idea: System discourages guessing: http://pareonline.net/pdf/v11n8.pdf, try it at https://quizslides.com/#0/6

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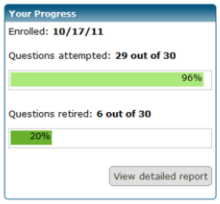
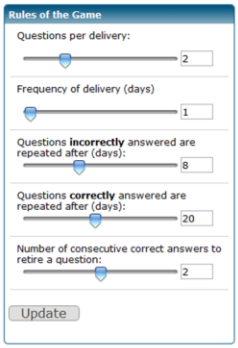
ANALYTICS – ACTING ON THE DATA

- Selection and timing of questions to answer
  - Repeated practice
    - Within minutes/hours/days/weeks/months?
  - Drop-off rate of succesfully recalled answers





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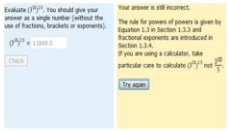
http://ondemand.blackboard.com/r91/movies/Bb91_evaluation_sending_notifications.htm

Images: http://qstream.com

ANALYTICS – ACTING ON THE DATA

- Timing of feedback – Based on Correct-Incorrectness and Speed
  - Per question
    - Answer again



  - Per group of questions
  - Per test as a whole
    - Directly after, longer and even longer

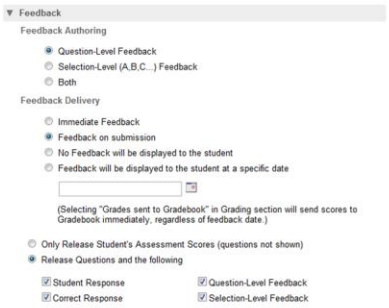
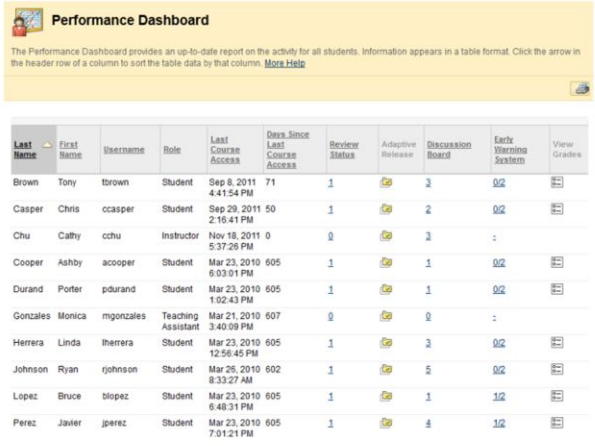


Image from Assessment Feedback Settings Sakai CLE
Image from Sally Jordan Blog: http://www.open.ac.uk/blogs/SallyJordan/?p=880

ANALYTICS – ACTING ON THE DATA



Performance Dashboard

The Performance Dashboard provides an up-to-date report on the activity for all students. Information appears in a table format. Click the arrow in the header row of a column to sort the table data by that column. More Help

Last Name	First Name	Username	Role	Last Course Access	Days Since Last Course Access	Review Status	Adaptive Release	Discussion Board	Early Warning System	View Grades
Brown	Tony	tbrown	Student	Sep 8, 2011 4:41:54 PM	71	1		3	0/2	
Casper	Chris	ccasper	Student	Sep 29, 2011 2:16:41 PM	50	1		2	0/2	
Chu	Cathy	cchu	Instructor	Nov 18, 2011 5:37:26 PM	0	0		3	-	
Cooper	Ashby	acooper	Student	Mar 23, 2010 6:03:01 PM	605	1		1	0/2	
Durand	Porter	pdurand	Student	Mar 23, 2010 1:02:43 PM	605	1		1	0/2	
Gonzales	Monica	mgonzales	Teaching Assistant	Mar 21, 2010 3:40:09 PM	607	0		0	-	
Herrera	Linda	lherrera	Student	Mar 23, 2010 12:56:45 PM	605	1		3	0/2	
Johnson	Ryan	rjohnson	Student	Mar 26, 2010 8:33:27 AM	602	1		5	0/2	
Lopez	Bruce	blopez	Student	Mar 23, 2010 6:48:31 PM	605	1		1	1/2	
Perez	Javier	jperez	Student	Mar 23, 2010 7:01:21 PM	605	1		4	1/2	

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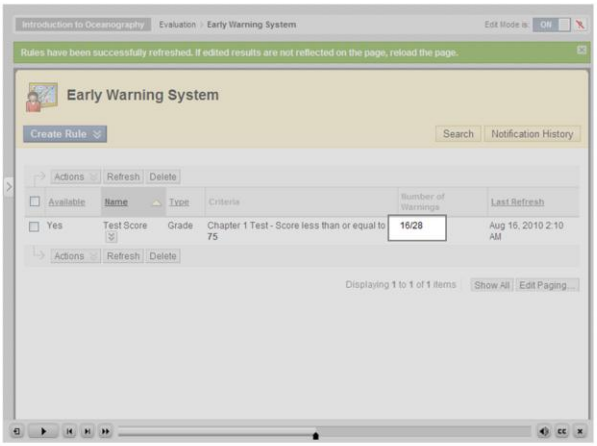
ANALYTICS



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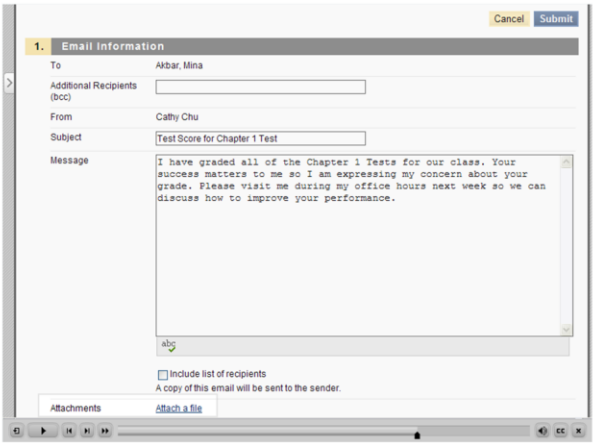
ANALYTICS



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CONCLUSION

- Assessment in the form of quizzing can be powerful learning aid

- Analytics can help with
  - Promotion of use
  - Decisions for repetition
  - Timing of repetition
  - Timing and type of feedback

  - Two more presentations to go:
    - Sharon Klinkenberg, Universiteit van Amsterdam
    - Caroline Timmers, Universiteit Twente

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